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STUDIES IN THE GENUS COCCOLOBA, XI. NOTES ON THE SPECIES IN ASIA

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THE GENUS Coccoloba, as recognized today, is native only in the Western Hemisphere, although several epithets in the genus, based on specimens from Asia, were published in the eighteenth and nineteenth centuries. All of these, however, either have been referred to other genera of the Polygonaceae or represent nomina nuda which cannot be identified. A few species of Coccoloba have been introduced into cultivation in Asia, and C. uvifera, at least, has become established in several areas. The following species were described and based on specimens from Asia. I have not examined the types of any of them.

Coccoloba adpressa Meisner ex Steudel, Nomencl. ed. 2. 1: 390. 1841.

Steudel attributed to Meisner the combination *Coccoloba adpressa* (Labill.) Meisner, based on *Polygonum adpressum* Labillardière (Nov. Holl. Plant. Spec. 1: 99. fig. 127. 1804). Meisner, however, referred to the species as *Muehlenbeckia adpressa* (Plant. Vasc. Gen. 2: 227. 1840) and it is so treated in modern Australian floras.

Coccoloba asiatica Loureiro, Fl. Cochinch. 239. 1790.

Jackson (Index Kewensis 1: 573. 1895) referred this name to Polygonum asiaticum. In a study of Loureiro's work, Merrill (Trans. Am. Philos. Soc. II. 24: 143. 1935) stated that Loureiro "described the same species twice under Coccoloba, C. asiatica . . . and C. cymosa . . ." Merrill referred both species from Cochinchina to Polygonum chinense L.

Coccoloba australis Forster, Prodr. 29. 1786.

The Forster specimen from New Zealand was transferred to Muehlenbeckia by Meisner (Plant. Vasc. Gen. 2: 227. 1840). This genus has been conserved, with M. australis (Forst.) Meisn. designated as the type species.

Coccoloba chita ? (Hort.), Cat. Pl. Hort. Bot. Bogor. 91. 1866, nomen nudum.

This epithet, published without description, was not included in later editions of the catalogue. No material bearing this name has been preserved.

JOURNAL OF THE ARNOLD ARBORETUM [vol. xlii Coccoloba crispata Buchanan-Hamilton in Roxburgh, Fl. Ind. 2: 292. 1832.

Meisner (DC. Prodr. 14: 130. 1856) listed this species with question in the synonymy of *Polygonum chinense* L. var. *thunbergiana* Meisner. He gave credit for this placement to Wallich in notes on record in the Grif-fith herbarium. Hooker (Fl. Brit. Ind. 5: 45. 1886) accepted the synonymy under *P. chinense* without question. The original description stated that the plant is a native of Nepal and was growing in the Botanic Garden at Calcutta.

Coccoloba cymosa Loureiro, Fl. Cochinch. 240. 1790.

Jackson (Index Kewensis 1: 573. 1895) referred this epithet to *Polygonum cymosum* without citing an author for the latter name, but Index Kewensis lists *Polygonum cymosum* Roxburgh, Hort. Beng. 88. 1814 [nomen nudum] and Fl. Ind. 2: 289. 1832 (which has been referred to *P. chinense* L.), as well as *Polygonum cymosum* Treviranus, Nov. Act. Nat. Cur. 13: 177. 1866, referred to *Fagopyrum cymosum* Meisner. Merrill (*loc. cit.*) concluded that the Loureiro species was to be associated with *P. chinense* L.

Coccoloba dubia Hort. ex Trimen, Hort. Zeyl. 67. 1888, nomen nudum.

No specimens are available to document this name which has not been uesd in more recent literature.

Coccoloba indica Wight ex Meisner in DC. Prodr. 14: 131. 1856, pro syn.

Lindau (Bot. Jahrb. 13: 220. 1890) listed "C. *indica* mss." in a collection of excluded species at the end of his monograph. He failed to acknowledge that earlier Meisner had cited this manuscript name, attributed to Wight, in the synonymy of *Polygonum chinense* L. var. *ovalifolium* Meisner.

Coccoloba platyclada (F. Mueller) F. Mueller, Bot. Mag. 89: pl. 5382. 1863.

Mueller originally described *Polygonum patycladum* [sic] (Trans. Phil. Inst. Vict. 2: 73. 1858) and later sent to Hooker, for publication in the Botanical Magazine, an excellent drawing and description. Since Hooker added only two lines of commentary, he should not be considered the author of this combination or of the article, as he is frequently cited. Mueller corrected the obvious typographical error in the specific name in synonymy and transferred the species to *Coccoloba*. Meisner (Bot. Zeit. 23: 313. 1865) considered the species as "*Muhlenbeckia platyclados*" and

1961] HOWARD, STUDIES IN THE GENUS COCCOLOBA, XI 109 many modern floras use the epithet *Muehlenbeckia platyclada*. Bailey (Gentes Herb. 2: 58. 1929) discussed the generic limits involved and established a former section of the genus *Polygonum* as the new genus *Homalocladium* for the species.

The original publication data attributed the plant collection to Shepherd from New Caledonia. In the Botanical Magazine (*loc. cit.*) Meisner clarified the origin by commenting, "This remarkable plant was discovered at Wanderer Bay, Solomon's Islands, by Mr. Milne, during Captain Denham's Voyage of H.M.S. Herald, and a living specimen of it was communicated to Messrs. Shepherd, of the Darling Nurseries, of Sydney, from whence the plant was received at the Melbourne Botanic Garden."

Coccoloba totnea Buchanan-Hamilton in D. Don, Prodr. Fl. Nepal. 75. 1825.

Hooker saw the Hamilton specimen and referred the species to the synonymy of *Polygonum molle* D. Don (Fl. Brit. Ind. 5: 50. 1886). Danser (Bull. Jard. Bot. Buitenz. III. 8: 233. 1927) referred both species to the synonymy of *P. paniculatum* Blume.

INTRODUCED SPECIES

Coccoloba caracasana Meisner in DC. Prodr. 14: 157. 1856. A specimen was received from Dr. Otto Degener (*s.n.* [A]) who reported that the species was being used as a hedge on the campus of the University of Hawaii, Honolulu, Oahu.

Coccoloba uvifera (L.) Linnaeus, Syst. Nat. ed. 10. 1007. 1759.

The common sea grape has been introduced as an ornamental shrub or tree for seaside plantings in many islands of Polynesia, and on Kauai, in Hawaii, I have observed plants which, having persisted after cultivation, are becoming established spontaneously. The following references are to *Coccoloba uvifera* in the Pacific area: Rarotonga (Wilder, Bishop Mus. Bull. 86: 47. 1931) Nuku Hiva, Marquesas (Brown, *ibid.* 130: 67. 1935); Vaitepaua, Makatea (Wilder, *ibid.* 120: 21. 1934); Batavia, Java (Danser, Bull. Buitenz. Bot. Gard. III. 8: 241. 1927). I have seen the following specimens:

Hawaii. OAHU: Degener 8986 (NY), Thompson s.n. (NY). India. Calcutta, cult. Calcutta Bot. Gard. s.n. (NY). Indochina. Hanoi, Tonkin, Petelot 3979 (NY); Saigon, Poilane 2435 (A, NY). Indonesia. Bogor, Wurjantoro 1 (A). New Caledonia. Noumea, Franc 1320 (A, NY). Tuamotu. Makatea, Wilder s.n. (NY).